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Published in:
Journal of Psychology in Africa

Publication date:
2014

Document Version
Early version, also known as pre-print

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):
Jackson, L. T. B., van de Vijver, F. J. R., & Fouché, R. (2014). Psychological strengths and subjective well-being in South African white students. *Journal of Psychology in Africa*, 24(4), 299-307.

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Publisher: Routledge

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Journal of Psychology in Africa

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rpia20>

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Published online: 25 Nov 2014.

To cite this article: Leon T. B. Jackson, Fons J. R. van de Vijver & Runl Fouch (2014) Psychological strengths and subjective well-being in South African white students, Journal of Psychology in Africa, 24:4, 299-307

To link to this article: <http://dx.doi.org/10.1080/14330237.2014.980617>

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Psychological strengths and subjective well-being in South African white students

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This study investigated the role of individual resources, notably self-efficacy, gratitude, and hope, in subjective well-being of white dormitory students at a historically white institution of higher learning. Using a convenience sample of white students ($N = 227$), we tested the role of generalised self-efficacy, gratitude, and hope as indicators of a latent factor, labelled personal resources, in a structural equation model with subjective well-being as the latent output variable, measured by self-esteem and satisfaction with life. Path analyses indicated a reasonable fit between the data and our hypothesised theoretical model which proposed positive relations between levels of generalised self-efficacy, gratitude, dispositional hope, self-esteem and satisfaction with life. White students were psychologically doing well, considering above-midpoint levels obtained for levels of generalised self-efficacy, gratitude, dispositional hope, and satisfaction with life. However, scores obtained for self-esteem and adult dispositional hope were below the mid-point and neutral respectively, indicating that White students do not agree that they experience high levels of these two psychological strengths. White female students experienced higher levels of hope, gratitude, and life satisfaction, while no significant gender differences were found for generalised self-efficacy and self-esteem. The results of this study highlight the potential for using psychological strengths to promote well-being in racially diverse students.

Keywords: generalised self-efficacy, hope, subjective well-being, gratitude, self-esteem and satisfaction with life

Evidence to suggest that the pervasiveness of white ethnic anxiety in post-apartheid South Africa has been reported (Steyn, 2004), including “feelings of outrage, indignation, and self-pity” (p. 157). However, a national survey (Boyce, 2010) reported life satisfaction levels of the South African white youths to be high (74%), with South Africans of Indian descent and coloureds (mixed race) comparatively less satisfied (59% and 48% respectively).

A question of interest is how psychological strength, including generalised self-efficacy, gratitude, and hope, influence subjective experiences of well-being, including self-esteem and life satisfaction, of white dormitory students at a historically white institution of higher learning (IHL). Self-efficacy gives an indication of the levels of confidence individuals have in their ability to carry out a course of action or attain specific goals (Bandura, 2001), and gratitude could be relevant for the improved opportunities to study in the new South Africa, while hope would be relevant for success with their studies and an opportunity to apply learned skills and knowledge post-graduation. Self-esteem could be associated with feeling good about the relatively high status of a student in a country with high levels of illiteracy. Generalised self-efficacy, gratitude, and hope are possible resources to cope with a challenging environment (Froh, Kashdan, Ozimkowski, & Miller, 2009; Jafri, 2013; Luthans, Youssef, & Avolio, 2007; Snyder, 2002), and these resources could contribute to and predict levels of subjective well-being of white students in the dormitories of a historically white IHL.

Perceptions of future prospects could be gendered and racialised in that the Employment Equity Act (Republic of South Africa, 1998) is an affirmative action instrument to address historical disadvantaged Blacks, women, and people with disabilities. Its impact in part has created

pathways to success for those with historical disadvantage such as women and Blacks (Department of Labour, 2012). White female students would have noticed more recent opportunities for themselves and their female friends and family members. Given the research findings above on gender differences and the South African context that favours women in general, we hypothesised that we would not see the gender differences observed in other countries and that we would see scores of female students that are at least as high as male scores on self-efficacy, hope, gratitude, self-esteem, and life satisfaction, compared to their male counterparts.

Positive health and well-being

During the last decades, more attention has been given to well-being and positive mental health rather than pathology (e.g., Veenhoven, 2008). There is an increasing awareness that well-being is not the same as absence of symptoms. This perspective is neither new nor unique for psychology, as it is already enshrined in the constitution of the World Health Organisation, where health is defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1948). More recently, the WHO has defined positive mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2001).

Human beings possess positive characteristics, generally named ‘character strengths’, which promote well-being and other positive outcomes, such as competency (e.g., Lavy & Littman-Ovadia, 2011; Peterson & Seligman, 2004; Steger, Hicks, Kashdan, Krueger, &

Bouchard, 2007). Character strengths are meant to capture those qualities that are best about people and capture their potential to contribute to the world around them (Littman-Ovadia & Lavy, 2012). They are conceived as being similar to positive personality traits in that they are durable sources of individual differences, manifested to various degrees in the thoughts, feelings, and behaviours of different people (Peterson & Seligman, 2004).

Peterson and Seligman (2004) have developed a classification of 24 character strengths, related to six broader virtues: (a) wisdom and knowledge (including the strengths of creativity, curiosity, judgment, love of learning, perspective); (b) courage (including bravery, honesty, persistence, zest); (c) humanity (including kindness, love, social intelligence); (d) justice (including fairness, leadership, teamwork); (e) temperance (including forgiveness, modesty, prudence, self-regulation); and (f) transcendence (including appreciation of beauty, gratitude, hope, humour, religiousness). Seligman (2002) argued that the greatest successes and satisfaction in life come from enhancing and using one's character strengths rather than focusing on one's weaknesses.

Psychological capital has its origin in positive organisational behaviour (Luthans et al, 2007; Nelson & Cooper, 2007), which is largely drawn from the theory and research in positive psychology (Peterson & Seligman, 2004) as applied to organisations. Psychological capital is defined as an individual's positive psychological state of development that is characterised by self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). Research has confirmed that high performing students have more psychological capital than low performing students (Jafri, 2013; Luthans et al., 2007). This means that students with more psychological capital have more resources to deal with problematic situations, which in turn has a positive influence on their performance. Students with more psychological capital believe more in themselves, show more perseverance and persistence, plan their work better, have a better capability to cope with difficult situations, and have a more positive outlook; a combination of these probably helps in improving their academic performance (Jafri, 2013). In the current investigation, the focus is on the effects of self-efficacy and hope as predictors of subjective well-being.

Model antecedents: self-efficacy, gratitude, and hope

More self-efficacy is related to better well-being, regulation of the stress process, higher self-esteem, a better physical condition, a stronger tendency to persist with a task despite difficulties and to seek an acceptable resolution, whereas low self-efficacy is related to symptoms of stress, anxiety, depression, and lower levels of subjective well-being (Devonport & Lane, 2006; Karademas, 2006). In addition, generalised self-efficacy is positively related to sense of coherence, affect, and satisfaction with life (Van Straten, 2007). Hampton (2000) confirmed that self-efficacy is positively related to both quality of life and life satisfaction, that self-efficacy and health status are positively correlated with life satisfaction, and that a major contributor to life satisfaction is self-efficacy.

Hope and hopelessness express the expectations of the individual towards the future (Sahin, 2002). Hope refers to

persevering toward goals and, when necessary, redirecting paths to goals in order to succeed (Luthans et al., 2007). Hope is defined as the feeling of trust emerging from the individual's hope and expectations about the future (Rideout & Montemuro, 1986), while Tennen, Afteck, and Tennen (2002, p. 312) defined hope as "the will or determination to meet one's goals and the belief that one can find ways to meet these goals". Students with higher levels of hope used significantly less wishful thinking, self-criticism, and social withdrawal as coping strategies (Chang, 1998). Hope is directly associated with higher student academic achievement. Individuals who are more hopeful are also more motivated, challenged, and energised by their life goals (Snyder, 2002). Finally, O'Sullivan (2011) recently demonstrated that hope is a predictor of life satisfaction.

Being grateful may build and strengthen social bonds and friendships (Fredrickson, 2004). Gratitude, "a sense of joy and thankfulness in response to receiving a gift" (Emmons, 2004, p. 554), enables one to notice, understand, and capitalise on beneficial exchanges with others (McCullough, Kimeldorf, & Cohen, 2008). Gratitude is viewed as an emotion that occurs after an individual receives assistance or support which is perceived as costly, valuable, and altruistic (Wood, Maltby, Stewart, Linley, & Joseph, 2008). In addition, gratitude may also arise from sources, such as appreciation of one's abilities, or from a climate in which successful work is possible (Graham & Barker, 1990; Veisson, 1999), suggesting that gratitude involves more than an interpersonal appreciation of other people's aid. Froh, Yurkewicz, and Kashdan (2009) showed that gratitude in youth correlated with well-being. Recently it has been shown that gratitude can predict individual differences in satisfaction with life (Wood, Joseph, & Maltby, 2008). Several studies have shown that the relationship between gratitude and well-being persists after controlling for other variables (e.g., Froh et al, 2009). Longitudinal evidence supports gratitude as a precursor of well-being. Using Structural Equation Modeling (SEM) in two longitudinal studies, Wood, Maltby, Gillett, Linley, and Joseph (2008) demonstrated that the model where gratitude led to well-being was much better supported than a model with the reverse causation.

Self-esteem and life satisfaction as indicators of well-being

Self-esteem and life satisfaction are indicators of subjective well-being. Self-esteem is a positive or negative orientation toward oneself, an overall evaluation of one's worth or value (Rosenberg, 1965). Self-esteem is defined as a judgment of one's self-worth (Rosenberg, 1989), based on self-evaluations in salient life domains including physical, mental, and social functioning (Dlugonski & Motl, 2012). A number of studies have focused on identifying the most important components of self-esteem. The results of these studies indicate that physical appearance is the best predictor and that social acceptance is the second best predictor of global self-esteem in both males and females across all age levels (Shapka & Keating, 2005). Individuals who have high self-esteem trust themselves to take risks to achieve their aims despite the possibility of failure, which can boost their ambition levels. On the other

hand, individuals with low self-esteem tend to protect themselves, fearing rejection in the pursuit of success and prestige, avoiding risk, and making situations difficult for themselves (Baumeister, Tice, & Hutton, 1989). Research has confirmed the positive relation between self-esteem and satisfaction with life (Zhang & Leung, 2002).

Life satisfaction is the appraisal of life as a whole (Shin & Johnson, 1978), and one of the most well-established indicators of happiness, well-being, and positive functioning (Suldo, Riley, & Shaffer, 2006). Typically, scores on self-report measures of life satisfaction are used throughout the research literature to indicate subjective feelings of happiness or unhappiness (Proctor, Linley, & Maltby, 2009). In general, positive evaluations of life satisfaction are linked with positive functioning, whereas negative evaluations of life satisfaction are associated with depression and negative functioning (Proctor et al., 2009). Individuals with high life satisfaction reported higher emotional and social self-efficacy (Pinquart, Silbereisen, & Juang, 2004; Suldo & Huebner 2006). Therefore, life satisfaction is an important psychological variable in the adolescence period and an important indicator of individuals' psychological development.

Gender differences in self-efficacy, hope, gratitude, self-esteem, and life satisfaction

No evidence is available about gender differences in generalised self-efficacy in South Africa; evidence from elsewhere is inconclusive. Buchanan and Selmon (2008) found that white males scored higher than white females and African males but lower than African females, while Leung and Leung (2011) found no difference in the generalised self-efficacy scores between male and female participants.

Gender differences in hope scores have been reported in the literature. Heaven and Ciarrochi (2008) found that girls reported more hope than boys. There are published studies of gender differences in gratitude. Research findings (Kashdan, Mishra, Breen, & Froh, 2009) also suggest that women score higher on measures of trait gratitude. In the same vein, Gordon, Musher-Eizenman, Holub, and Dalrymple (2004) found that girls expressed more gratitude for social relationships, compared to boys who felt more grateful for material possessions. Additionally, grateful feelings in social situations appear to be more frequently observed in young girls compared to boys (Baumgarten-Tramer, 1938). The study of Sommers and Kosmitzki (1988) has also demonstrated that older American men evaluated gratitude as less useful than other positive emotions, such as love, enthusiasm, hope, compassion, and pride. American men (at least 35 years of age) reported an explicit preference for concealing rather than expressing gratitude. In contrast, none of the younger or older women in the study showed a preference for concealing gratitude.

The results on gender differences in self-esteem seem to favour males. Research suggested that men tend to report higher self-esteem than women, at least in adolescence and adulthood, although the effect size is generally small (Orth, Trzesniewski, & Robins, 2010; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). Both longitudinal and cross-sectional studies of self-esteem

reported higher scores among males (Pollastri, Cardemil, & O'Donnell; 2009; Puskar, Bernardo, Ren, Haley, Tark, Switala, & Siemon, 2010). Choma et al. (2010) also found higher self-esteem scores among males. However, Orth, Robins, and Widaman (2012) found that gender did not affect self-esteem.

The findings in a meta-analytic study (Haring, Stock, & Okun, 1984) showed that gender is not a major determinant of subjective well-being. However, in a few studies women reported lower levels of life satisfaction compared to men (Hutchinson, Simson, Bain, Wyatte, Tucker, & Lefranc, 2004; Neto & Barros, 2007). Joshanloo and Afshari (2011) recently confirmed that Iranian female students scored significantly higher than male students on life satisfaction. Findings regarding gender differences in satisfaction with life appear inconclusive.

The overview suggests that females do not score higher in any domain (except for hope). Still, we argue that these findings may not apply to South African gender differences. Post-apartheid South Africa has more opportunities for white women than before (Department of Labour, 2013), whereas white males may feel deprived of the opportunities they once had (Herman, 2000). As a consequence, we expect that females would score at least as high as male students in all domains covered.

The present study

There are new South African studies on the link between psychological resources and well-being (e.g., Barkhuizen, Rothmann, & Van de Vijver, 2013; Jackson, Van de Vijver, & Biela, 2013; Jackson, Rothmann, & Van de Vijver, 2006). This study focused on how students use positive resources for well-being in South African groups. As a consequence of the absence of South African studies, we derive our hypotheses from the studies in other countries described in the introduction:

1. H1: Psychological resources (measured by self-efficacy, gratitude, and hope) serve as positive predictors of subjective experiences of well-being (measured by self-esteem and satisfaction with life);
2. H2: Scores of self-efficacy, hope, gratitude, self-esteem and satisfaction with life are at least as high for female students as for their male counterparts.

Method

Design, procedure, and participants

Following a quantitative research approach, a cross-sectional survey design was employed. We recruited a convenience sample of students in dormitories at a South African historically white IHL, after permission was granted to conduct the research. Participation was voluntary and anonymous. A total of 500 students were targeted. A response rate of 51% was achieved, of which 227 responses were utilised. The sample consisted of White, Afrikaans-speaking (100%), female (68%) students between 17 and 19 years of age (54%). The largest group of the participants were studying Economic Sciences (41%) (see Table 1).

Table 1. Psychometric properties and descriptive statistics of the measuring instruments

Instruments	<i>M</i>	<i>SD</i>	Variance explained	1	2	3	4
1. Generalised self-efficacy	3.65	0.71	63.19	-			
2. Adult dispositional hope	3.09	0.46	39.08	0.43**	-		
3. Gratitude	4.89	1.75	55.57	0.48**	0.46**	-	
4. Self-esteem	2.24	0.55	44.93	0.01	0.20**	0.14*	-
5. Satisfaction with life	3.65	0.69	58.11	0.43**	0.40**	0.39**	0.20**

* $p < 0.05$ ** $p < 0.01$ **Measuring instruments**

Participants completed the following measures of psychological strengths and subjective wellbeing: The General Self-Efficacy Questionnaire [GSE] (Tipton & Worthington, 1984), The Adult Dispositional Hope Scale [ADHS] (Snyder, et al., 1991), Gratitude Questionnaire [GQ] (McCullough, Emmons, & Tsang, 2002), The Rosenberg Self-Esteem Scale [RSE] (Rosenberg, 1965), and The Satisfaction with Life Scale [SL] (Diener, Emmons, Larson, & Griffin, 1985). These measures are described below. A biographical questionnaire was included, assessing age, ethnicity, home language, field of study, and gender.

The General Self-Efficacy Questionnaire [GSE] (Tipton & Worthington, 1984) is a measure of psychological strengths. It measures how the individual judges his or her own abilities and regulates the experience of personal efficacy with regard to life incidents. Tipton and Worthington reported that they based their GSE scale on the concept of faith, especially faith in oneself. This 10-item measure uses a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree. Sample items include “I can always manage to solve difficult problems if I try hard enough” and “If I am in trouble, I can usually think of a solution”. The score obtained for GSE ranged between 1.5 and 5 (with higher scores referring to more self-efficacy) and the reliability of scores from the GSE in the study sample was 0.93

Adult Dispositional Hope Scale [ADHS] (Snyder, et al., 1991). The hope scale is a 12-item inventory designed to tap dispositional hope in adults, ages 15 and above. Four items are used as distractors and are excluded from score the construct. There was a 4-point response scale (from 1 = definitely false to 4 = definitely true). Sample items include “I can think of many ways to get out of the jam” and “Even when others get discouraged, I know I can find a way to solve the problem”. The score obtained for ADHS ranged between 1.6 and 3.8 (higher scores refer to more hope) and the reliability of scores from the ADHS in the study sample was 0.70.

Gratitude Questionnaire [GQ] (McCullough, Emmons, & Tsang, 2002). The GQ-6 was used to measure experiences and expressions of gratefulness and appreciation in daily life, as well as feelings about receiving from others. Respondents are asked to endorse each item on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree. Two items are negatively phrased and were reversed before scoring the scale. Sample items include “I have much in life to be thankful for” and “when I look at the world, I don’t see much to be grateful for”. The score obtained for GQ ranged between 2.3 and 7 (higher

scores refer to more gratitude) and the reliability of scores from the GQ in the study sample was 0.80.

The Rosenberg Self-Esteem Scale [RSE] (Rosenberg, 1965). The RSE is a 10-item measure using a 4-point scale ranging from 0 = strongly disagree to 3 = strongly agree. The measure contains five positively and five negatively phrased items. Sample items include “I feel that I have a number of good qualities” and “All in all, I am inclined to feel that I am a failure. Scores on all negatively phrased items were reversed before the analyses. The score obtained for RSE ranged between 1.5 and 3.7 (higher scores refer to more self-esteem) and the reliability of scores from the RSE in the study sample was 0.85.

The Satisfaction with Life Scale [SL] (Diener, Emmons, Larson, & Griffin, 1985). This five-item scale (sample item: “I am satisfied with my life”) was complemented with two additional items (“Life is worth living” and “All in all, I am satisfied with my life these days”). The scale primarily addresses the cognitive components of satisfaction with life. Literature reviews confirm that this scale is one of most widely-used measures of general well-being (Goetz, Ehret, Jullien, & Hall, 2006). The score obtained for SL ranged between 2 and 5 (higher scores refer to more well-being) and the reliability of scores from the SL in the study sample was 0.87.

Exploratory factor analyses, descriptive statistics, and correlations

Exploratory factor analyses (per scale) were conducted. The sharp drop after the first eigenvalue in the inspections of the scree plots indicated that the scales used to measure self-efficacy, hope, gratitude, self-esteem, and satisfaction with life were unifactorial (see Table 1). The psychometric properties, descriptive statistics, and the correlation matrix of all the scales used in this study are presented in Table 1. As can be seen in Table 1, Cronbach alpha coefficients of all scales were well above the proposed minimum level of 0.70 (Cicchetti, 1994). These findings imply that all scales measured a single factor and showed an adequate internal consistency.

Data analyses

The statistical analyses were carried out using the SPSS and AMOS software programmes. Descriptive statistics were used to analyse the data. Exploratory factor analyses and Cronbach alpha coefficients were calculated to determine the internal consistency, homogeneity, and unidimensionality of the measuring instruments (Clark & Watson, 1995). We propose and test a hypothesised model where psychological resources predict well-being, using structural equation modelling (SEM). Resources, a

latent variable, are measured by generalised self-efficacy, gratitude, and adult dispositional hope. Resources serve as antecedent for a latent factor, labelled subjective experiences of well-being, which was measured by self-esteem and satisfaction with life. The use of SEM is appropriate here as we are interested in associations of latent variables (resources and well-being).

A multivariate analysis of variance (MANOVA) was carried out with gender (two levels: males and females) as independent variable and the mean scores of the scales as dependent variables. Effect sizes (Cohen, 1988) were used in addition to statistical significance to determine the salience of relationships.

Results

Structure of psychological resources for predicting well-being of students

Results of the SEM analyses revealed that the hypothesised model that included psychological resources (self-efficacy, gratitude, and hope) as predictor of a latent outcome, well-being, which was measured by self-esteem and satisfaction with life, fitted the empirical data reasonably well: $\chi^2(4, N = 227) = 10.14, p = 0.04$; $\chi^2/df = 2.53$ (recommended value in small samples: ≤ 3.00); the adjusted goodness of fit index (AGFI) was

0.93 (recommended: ≥ 0.90), the Tucker Lewis index (TLI) was 0.93 (recommended: ≥ 0.90), the comparative fit index (CFI) was 0.97 (recommended: ≥ 0.90), and the root mean square error of approximation (RMSEA) was 0.08 (recommended: ≤ 0.06). The parameters of the model are presented in Figure 1. It is clear from the figure that the standardised regression weights in the hypothesised model were significant and showed the expected signs; 51% of the variance in well-being is predicted by personal resources. It can be concluded that personal resources, as measured by generalised self-efficacy, gratitude, and dispositional hope, are good predictors of well-being, as measured by self-esteem and satisfaction with life.

Comparisons of levels of generalised self-efficacy, gratitude, dispositional hope, self-esteem and satisfaction with life of male and female students

In order to examine male and female group differences in the experience of self-efficacy, hope, gratitude, self-esteem, and satisfaction with life, a MANOVA was carried out with gender (two levels: male and female) as independent variable and the mean scores of the scales as dependent variables. The mean scores of the scales per gender group are presented in Table 2.

Figure 1. Path model linking personal resources to well-being (standardised coefficients).

Table 2. Mean scores and standard deviations per scale for the male and female groups and the effect size of their difference

Scale	Males		Females		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Generalised self-efficacy	3.56	0.71	3.70	0.71	-0.21
Adult dispositional hope	2.96	0.53	3.15	0.41	-0.41**
Gratitude	4.00	1.70	5.31	1.61	-0.79***
Self-esteem	2.28	0.56	2.22	0.55	0.10
Life satisfaction	3.47	0.74	3.73	0.65	-0.40**

** $p < 0.01$ *** $p < 0.001$

The multivariate effect of gender was significant and its effect size was large (Wilks' Lambda = 0.84; $F(5, 220) = 8.16$, $p < 0.001$, $\eta^2 = .16$). White female students experienced significantly more hope, gratitude, and satisfaction with life compared to white male students. Medium to large effect sizes were observed. These findings are in line with our expectations. However, no gender differences were observed for generalised self-efficacy and self-esteem. Gender differences in these variables that have been reported in the literature usually suggested higher scores of males. This deviance of the general pattern could support our expectation that females are doing relatively well and see more opportunities in the new South Africa; however, we do not have reference from the days of apartheid and cannot rule out the absence of any post-apartheid change.

Compared to their male counterparts, white female students in a historically white IHL indicated that they evaluated their personal psychological resources, such as generalised self-efficacy, adult dispositional hope, and satisfaction with life more positively than did male students (medium effect). In addition, white male students scored slightly higher on self-esteem compared to female students in this historically white IHL. In addition, Table 1 and 2 also suggest that both white male and female students were in good psychological condition, given the average scale scores that were well above the midpoint of the response scales for most constructs measured. Although the impact of social desirability could not be ruled out, our findings make it unlikely that our sample is in a deplorable mental state, as implied in the opening quotation of the introduction.

Discussion

We examined the role of psychological resources in well-being among Afrikaans-speaking students in South Africa. We were particularly interested in this group as there are conflicting views on the implications of the social-political changes in the country after the abolishment of apartheid on their well-being. In addition, males (being "previously advantaged") had historically a superior position in public life to females (being "previously disadvantaged"); these positions have come under threat with shifts in opportunities in favour of females in the post-apartheid South African context.

We found means above the scale midpoints for most of the constructs measured, except for self-esteem and adult dispositional hope. These findings indicate that on average, white male and female students in a historically white IHL are in a good psychological state. This sample did not suffer from the existential trouble described in the initial quotation in the introduction. Our findings correspond with those of other studies among White students (e.g., Adams, Ferguson, Van de Vijver, & Nel, 2013), as well as with studies of the psychological adjustment of whites in the workplace in general (Jackson & Van de Vijver, 2013; Jackson, Van de Vijver, & Ali, 2012).

We hypothesised that scores of self-efficacy, hope, gratitude, self-esteem, and satisfaction with life would be at least as high for female students than for their male counterparts. Our results indicate that white female students experienced higher levels of hope, gratitude, and

life satisfaction, while no significant differences were found for generalised self-efficacy and self-esteem compared to white male students. So, the data support our view that the societal changes in South Africa have enhanced the experiences of psychological resources and well-being for females compared to their male counterparts. However, our findings also suggest that the female advantage does not materialise for domains that are traditionally related to self and identity and are restricted to domains that refer to perceived past and future opportunities (gratitude and hope, respectively) and their evaluation (life satisfaction). These findings seem to concur with previous findings in that the results on gender differences in self-esteem appear to favour males. Research suggests that men tend to report higher levels of self-esteem than women, at least in adolescence and adulthood, although the effect size is generally small (Orth, Trzesniewski, & Robins, 2010; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). So compared to what we see in the literature, females in South Africa are in good psychological health.

In addition, we proposed and tested a model in which personal resources serve as antecedents of well-being. Results of the SEM analyses revealed that the hypothesised model according to which psychological strength serves as antecedent of well-being fitted the data reasonably well. Our model is in line with various findings in the literature. For example, O'Sullivan (2011) observed positive correlations between hope and generalised self-efficacy. Grant and Gino (2010) have demonstrated in an experimental procedure that when helpers are thanked for their efforts (gratitude), they experience stronger feelings of self-efficacy. Our findings confirm findings by Andersson, Giacalone, and Jurkiewicz (2007), who also observed positive relations between gratitude and hope. Our results also concur with the findings of Ciarrochi and Heaven (2012) who reported positive correlations between hope and self-esteem. In addition, our correlational results also correspond with previous correlational findings. Both Hampton (2000) and Van Straten (2007) observed positive relations between self-efficacy and satisfaction with life. Our correlational results also resemble the findings of Marques, Lopez, and Mitchell (2013) who found in a three-wave longitudinal study that hope correlated positively with satisfaction with life at each time point. Fagley (2012) also found positive correlations between "generalised gratitude" (a subscale of the appreciation scale that also correlated positively with gratitude in the same study) while the findings of Kwan, Bond, and Singelis (1997), Lucas, Diener, and Suh (1996), and Zhang and Leung (2002) have confirmed the positive relation between self-esteem and satisfaction with life.

Implications of the study

Practical implications of the study include the need to support strengths for positive emotions, meaning, accomplishment, and better relationships in students. Strengths serve as lubricants for enabling positive psychological functioning (Proyer, Ruch, & Buschor, 2012). Training interventions could be used to enhance the self-efficacy, hope, gratitude and self-esteem of white students that would in turn positively impact on satisfaction with

life. These interventions could aim to broaden the horizon of these students so that they can make a historical and geographical comparison and evaluation of their position. These insights may make students more grateful of various aspects in their life (Emmons & McCullough, 2004), such as the opportunity to study, to increase gratitude, opportunity to exercise new skills (Grant & Gino, 2010) to enhance self-efficacy, as well as goal-setting workshops to increase hope. Sin and Lyubomirsky (2009) have recently shown in a meta-analysis that positive interventions are effective in enhancing well-being and alleviating depression.

Limitations of the study

Our study is not without limitations. No causal conclusions can be drawn from any cross-sectional design (Avey, Patera, & West, 2006). Wood et al. (2008) have suggested that gratitude is a precursor of well-being in longitudinal studies. Longitudinal data could shed light on the best possible role of self-esteem. This study did not include experimental manipulation or random assignment; therefore, causal relationships between self-efficacy, hope, gratitude, self-esteem, and satisfaction with life cannot be determined. The other limitation is common method variance due to self-report bias. Common method variance refers to the degree to which correlations are inflated, due to a methods effect (Meade, Watson, & Kroustalis, 2007). In this study, common method bias may have occurred due to using the same source to gather data on independent and dependent variables. Bias may lead to common method variance (i.e., variance attributable to a methods effect) (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We only used white Afrikaans speaking students in a historically white institute of higher learning, which implies that our findings cannot be generalised to all students and youths in South Africa. Given the difficult circumstantial factors of Black students and youths such as poverty, HIV, parental unemployment, a historically disadvantaged schooling system and extended families in small dwellings in squatter camps, it is suggested that this study be extended to include other ethnic groups in South Africa. Longitudinal studies could also be conducted to establish cause and effects. Additionally, situational or circumstantial factors could also be included to determine their role in satisfaction with life.

Conclusion

White female students experienced higher levels of hope, gratitude, and life satisfaction, while no significant differences were found for generalised self-efficacy and self-esteem compared to white male students. Possible explanations for this include the fact that societal changes in South Africa may have enhanced the experiences of psychological resources, particularly in female students. It would seem that the students have healthy adaptive resilience and coping as education institution dwellers.

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